

## Message Text

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ORIGIN SCI-06

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FM SECSTATE WASHDC

TO AMEMBASSY OTTAWA PRIORITY

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E.O. 11652: N/A

TAGS: ETHEL, TECH, CA

SUBJECT: US/CANADA ARRANGEMENTS FOR USAEC -- CANADIAN  
NRC JOINT POLAR CUSP EXPERIMENTS (OPERATION  
TORDO)

REFS: (A) STATE 200980 (B) OTTAWA 2953

- (C) STATE A-7485 (D) OTTAWA 3149

1. REGRET MISUNDERSTANDING REPORTED REF (D). ON SEPTEMBER  
10, STATE DEPARTMENT AND USAEC OFFICIALS MET WITH DR.  
DONALD BENNETT, SCIENTIFIC COUNSELOR CANADIAN EMBASSY,  
AND LORNE CLARK OF EMBASSY'S LEGAL SECTION TO DISCUSS  
MANNER OF PROCEEDING TO ARRANGE FOR GOC APPROVAL FOR  
SUBJECT EXPERIMENTS. THREE ACTIONS WERE DECIDED UPON.

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FIRST, THE U.S. SIDE WOULD SEEK TO ARRANGE FOR THE VISIT

OF FOUR LOS ALAMOS SCIENTIFIC LABORATORY (LASL) REPRESENTATIVES TO ALERT NWT IN OCTOBER (REFS A, B AND D). SECOND, THE U.S. SIDE WOULD PROVIDE DETAILED REQUEST FOR COMMUNICATIONS SUPPORT PLAN AND RADIO FREQUENCY REQUIREMENTS (SENT, REF C ON SEPTEMBER 26). THIRD, THE U.S. SIDE WOULD REQUEST FORMAL GOC APPROVAL FOR THE JOINT EXPERIMENTS THROUGH A DIPLOMATIC NOTE FROM THE U.S. EMBASSY CANADA TO THE FOREIGN OFFICE (JUST AS REQUESTED PARA 4 (C), REF D).

2. INTERDEPARTMENTAL AND USAEC CLEARANCES AND SUGGESTED NOTE JUST COMPLETED FRIDAY SEPTEMBER 27. IN ANY EVENT,

CANCELLATION OF PLACES ON ALERT FLIGHT SEEMS SURPRISING IN LIGHT OF CANADIAN EMBASSY'S FULL KNOWLEDGE OUR PLAN OF ACTION OUTLINED ABOVE. ACTION REQUESTED : PASS FOLLOWING NOTE TO MINISTRY OF EXTERNAL AFFAIRS:

3. BEGIN TEXT OF NOTE. QUOTE THE EMBASSY OF THE UNITED STATES OF AMERICA PRESENTS ITS COMPLIMENTS TO THE MINISTRY OF EXTERNAL AFFAIRS AND HAS THE HONOR OF REFERRING TO INFORMAL DISCUSSIONS WHICH HAVE TAKEN PLACE BETWEEN OFFICIALS OF THE UNITED STATES ATOMIC ENERGY COMMISSION AND THE NATIONAL RESEARCH COUNCIL OF CANADA, CONCERNING THE PROJECT FOR LAUNCHING TWO BLACK BRANT ROCKETS WITH SHAPED CHARGE BARIUM PAYLOADS FROM THE DEW STATION AT CAPE PARRY, NWT, CANADA.

4. THE PROPOSED LAUNCH WOULD BE MADE ON A NONINTERFERENCE, COST-REIMBURSABLE BASIS IN JANUARY 1975. THE PROJECT, TO BE DESIGNATED OPERATION TORDO, IS INTENDED TO INJECT BARIUM JETS UPWARD ALONG THE MAGNETIC FIELD LINES IN THE POLAR CUSP TO STUDY FIELD LINE SHAPES, MAGNETOSPHERIC PLASMA CONNECTION, AND ARTIFICIALLY INDUCED PLASMA WAVE PHENOMENA.

5. EACH PAYLOAD WILL CONTAIN 50 POUNDS OF PBX 9404 EXPLOSIVE AND ONE KILOGRAM OF BARIUM METAL. TWO USAF/AEC NC-135 INSTRUMENTED AIRCRAFT WILL PARTICIPATE AS HIGH ALTITUDE DATA ACQUISITION STATIONS. GROUND BASED OBSERVATION STATIONS WILL BE ESTABLISHED AT HALL BEACH, NWT LIMITED OFFICIAL USE

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AND RESOLUTE, NWT, CANADA. IONOSPHERIC SAMPLING INSTRUMENTATION (IONOSONDE) SITES WILL BE ESTABLISHED AT SACH HARBOR NWT, AND AT THE DEW STATION AT CAPE PARRY, NWT, CANADA TO LOCATE THE MAGNETIC CUSP PRIOR TO THE ROCKET LAUNCHES. GROUND AIRCRAFT CONTROL STATIONS WILL BE ESTABLISHED AT ALERT, NWT, AND FORT CHURCHILL, MONITоба, CANADA.

6. IT IS UNDERSTOOD THAT THE NATIONAL RESEARCH COUNCIL OF CANADA WILL LAUNCH TWO BLACK BRANT ROCKETS WITH SCIENTIFIC PAYLOADS FROM CAPE PARRY IN DECEMBER 1974. THIS FACILITY IS SUITABLE FOR THE U.S. LAUNCHES.

7. IF THE PROPOSED PROJECT IS ACCEPTABLE TO THE GOVERNMENT OF CANADA, THE NUMBER OF PEOPLE WHO WOULD PARTICIPATE IN THE OPERATION IN CANADA (EXCLUSIVE OF THE NC-135 AIR CREWS) SHOULD NOT EXCEED FIFTEEN (15) AT THE CAPE PARRY LAUNCH SITE AND FIVE (5) AT EACH OF THE OTHER SITES IN CANADA. ALL PARTICIPANTS WOULD BE U.S. CITIZENS AND WOULD

BE AT THESE SITES FROM MID-DECEMBER 1974 TO MID-JANUARY 1975. THE ROCKET MOTORS, PAYLOADS, AND OTHER EQUIPMENT WOULD BE SHIPPED TO CAPE PARRY AND THE GROUND OBSERVATION SITES BY U.S. AIR FORCE OR COMMERCIAL AIRCRAFT, AS APPROPRIATE, IN DECEMBER 1974. ALL EQUIPMENT USED WOULD BE UNITED STATES GOVERNMENT OR UNIVERSITY OF ALASKA PROPERTY AND THAT NOT EXPENDED IN THE TEST WOULD BE RETURNED TO THE UNITED STATES AFTER COMPLETION OF THE PROJECT. ALL NC-135 AIRCRAFT OPERATIONS FOR THE PROJECT (STAGING BASES, FLIGHT AND COMMUNICATIONS CLEARANCES) WOULD BE COORDINATED BY THE UNITED STATES AIR FORCE THROUGH ESTABLISHED CHANNELS.

8. OPERATION TORDO IS UNCLASSIFIED, AND THE ACQUIRED DATA WILL BE RELEASED TO THE GOVERNMENT OF CANADA UPON REQUEST. IN DUE COURSE, THE INFORMATION MAY BE EXPECTED TO APPEAR IN THE APPROPRIATE OPEN SCIENTIFIC LITERATURE.

9. IT IS CONTEMPLATED THAT APPROPRIATE PROVISIONS TO PROVIDE A MUTUALLY AGREEABLE PROCEDURE FOR THE LAUNCH, INCLUDING PROVISIONS GOVERNING LIABILITY AND THE SETTLEMENTED OFFICIAL USE

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MENT OF CLAIMS RESPECTING LIABILITY RESULTING FROM ANY UNTOWARD INCIDENT CONNECTED WITH THE PROPOSED LAUNCHING, WILL BE INCLUDED IN ARRANGEMENTS TO BE MADE BETWEEN THE UNITED STATES ATOMIC ENERGY COMMISSION AND THE NATIONAL RESEARCH COUNCIL OF CANADA AND SHALL BE CONSISTENT WITH THE APPLICABLE LAWS OF BOTH COUNTRIES.

10. THE EMBASSY REQUESTS THE APPROVAL OF THE GOVERNMENT OF CANADA FOR THE PROPOSED LAUNCHINGS, AND FOR ANY ADDITIONAL LAUNCHINGS WHICH MIGHT TAKE PLACE IN 1975 UNDER SIMILAR CONDITIONS. APPROVAL IS ALSO REQUESTED FOR THE UNITED STATES ATOMIC ENERGY COMMISSION TO CONCLUDE DETAILED ARRANGEMENTS WITH THE NATIONAL RESEARCH COUNCIL OF CANADA IN PLANNING AND EXECUTING THE PROPOSED LAUNCHINGS.

11. THE EMBASSY OF THE UNITED STATES OF AMERICA AVAILS  
ITSELF OF THIS OPPORTUNITY TO RENEW TO THE MINISTRY OF  
FOREIGN AFFAIRS THE ASSURANCES OF ITS HIGHEST CONSI-  
DERATION. UNQUOTE . END TEXT OF NOTE.

12. FYI -- USAEC CHECKING WITH LASL REGARDING EMBASSY  
RECOMMENDATION REF D, PARA 4(A). END FYI INGERSOLL

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